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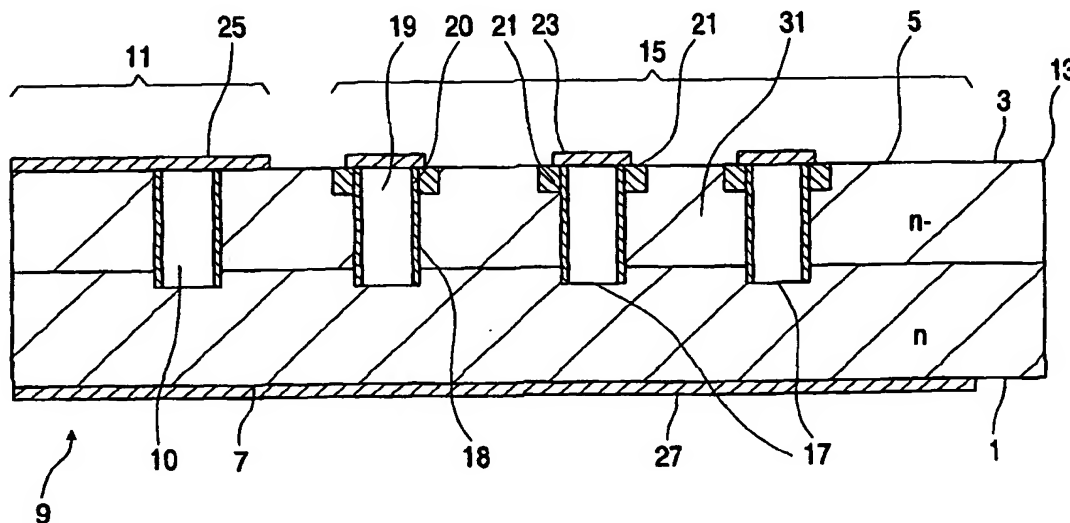
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(54) Title: SEMICONDUCTOR DEVICE WITH EDGE STRUCTURE



(57) Abstract: A semiconductor device has an edge termination region (15) having a plurality of trenches (17). Conductive material (20) and insulating material (19) is formed at the trenches, and surface implants (21) are formed on either side of the trenches. A conductive bridge (23) connects the surface implants (21) to allow equilibrium to be reached in reverse bias.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H01L29/41 H01L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 23703 A (SIEMENS AG ET AL) 14 May 1999 (1999-05-14) cited in the application page 12, line 8 -page 14, line 17; figures 4A-4D, 5C	1, 2, 5, 8-10
A	EP 1 011 146 A (ST MICROELECTRONICS SRL) 21 June 2000 (2000-06-21) cited in the application column 5, line 54 - line 57; figure 12 --- -/--	1, 2, 5, 8-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

International Application No.
PCT/JP 03/02929

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>VAN DALEN R ET AL: "BREAKING THE SILICON LIMIT USING SEMI-INSULATING RESURF LAYERS" PROCEEDINGS OF THE 13TH INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES & ICS (ISPSD '01), OSAKA, JP, 4 - 7 June 2001, pages 391-394, XP001052044 IEEE, NEW YORK, NY, USA ISBN: 4-88686-056-7C figures 1B,1C</p>	1,2,5,6,9,10
A	<p>US 5 365 102 A (MEHROTRA M ET AL) 15 November 1994 (1994-11-15) cited in the application column 7, line 6 - line 59; figure 5</p>	1,6,9,10
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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